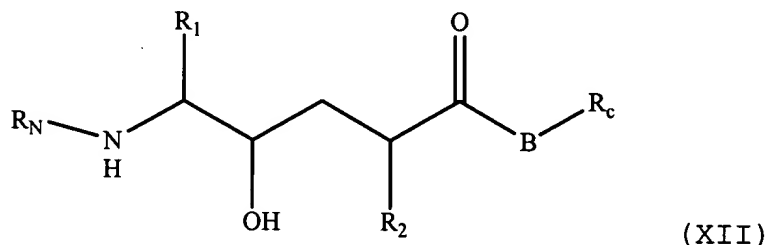


Listing of Claims

This listing of claims will replace all prior versions and listings of claims in the application.

Claims 1-48. (Canceled)

Claim 49. (currently amended) A method for treating Alzheimer's disease ~~a disease characterized by beta amyloid deposits in the brain~~ comprising administering to a patient an effective therapeutic amount of a ~~hydroxyethylene~~ compound of the formula



where R<sub>1</sub> is:

- (I) C<sub>1</sub>-C<sub>6</sub> alkyl, unsubstituted or substituted with one, two or three C<sub>1</sub>-C<sub>3</sub> alkyl, -F, -Cl, -Br, -I, -OH, -NH<sub>2</sub>, -C≡N, -CF<sub>3</sub>, or -N<sub>3</sub>,
- (II) -(CH<sub>2</sub>)<sub>1-2</sub>-S-CH<sub>3</sub>,
- (III) -CH<sub>2</sub>-CH<sub>2</sub>-S-CH<sub>3</sub>,
- (IV) -CH<sub>2</sub>-(C<sub>2</sub>-C<sub>6</sub> alkenyl) unsubstituted or substituted by one -F,
- (V) -(CH<sub>2</sub>)<sub>0-3</sub>-(R<sub>1</sub>-aryl) where R<sub>1</sub>-aryl is phenyl, 1-naphthyl, 2-naphthyl, indanyl, indenyl, dihydronaphthyl, tetralinyl unsubstituted or substituted on the aryl ring with one or two of

the following substituents which can be the same or different:

- (A) C<sub>1</sub>-C<sub>3</sub> alkyl,
- (B) -CF<sub>3</sub>,
- (C) -F, Cl, -Br and -I,
- (D) C<sub>1</sub>-C<sub>3</sub> alkoxy,
- (E) -O-CF<sub>3</sub>,
- (F) -NH<sub>2</sub>,
- (G) -OH, or
- (H) -C≡N,

(VI) -(CH<sub>2</sub>)<sub>n<sub>1</sub></sub>-(R<sub>1</sub>-heteroaryl) where n<sub>1</sub> is 0, 1, 2, or 3 and

R<sub>1</sub>-heteroaryl is:

- (A) pyridinyl,
- (B) pyrimidinyl,
- (C) quinolinyl,
- (D) indenyl,
- (E) indanyl,
- (F) benzothiophenyl,
- (G) indolyl,
- (H) indolinyl,
- (I) pyridazinyl,
- (J) pyrazinyl,
- (K) isoindolyl,
- (L) isoquinolyl,
- (M) quinazolinyl,
- (N) quinoxalinyl,
- (O) phthalazinyl,
- (P) imidazolyl,
- (Q) isoxazolyl,
- (R) pyrazolyl,
- (S) oxazolyl,

(T) thiazolyl,  
(U) indoliziny1,  
(V) indazolyl,  
(W) benzothiazolyl,  
(X) benzimidazolyl,  
(Y) benzofuranyl,  
(Z) furanyl,  
(AA) thienyl,  
(BB) pyrrolyl,  
(CC) oxadiazolyl,  
(DD) thiadiazolyl,  
(EE) triazolyl,  
(FF) tetrazolyl,  
(GG) 1, 4-benzodioxan  
(HH) purinyl,  
(II) oxazolopyridinyl,  
(JJ) imidazopyridinyl,  
(KK) isothiazolyl,  
(LL) naphthyridinyl,  
(MM) cinnolinyl,  
(NN) carbazolyl,  
(OO)  $\beta$ -carbolinyl,  
(PP) isochromanyl,  
(QQ) chromanyl,  
(RR) furazanyl,  
(SS) tetrahydroisoquinoline,  
(TT) isoindolinyl,  
(UU) isobenzotetrahydrofuranyl,  
(VV) isobenzotetrahydrothienyl,  
(WW) isobenzothiophenyl,  
(XX) benzoxazolyl, or

(YY) pyridopyridinyl,

where the  $R_1$ -heteroaryl group is bonded to  $-(CH_2)_{0-3}-$  by any ring atom of the parent  $R_N$ -heteroaryl group substituted by hydrogen such that the new bond to the  $R_1$ -heteroaryl group replaces the hydrogen atom and its bond, where heteroaryl is unsubstituted or substituted with one or two:

- (1)  $C_1-C_3$  alkyl,
- (2)  $-CF_3$ ,
- (3)  $-F$ ,  $Cl$ ,  $-Br$ , or  $-I$ ,
- (4)  $C_1-C_3$  alkoxy,
- (5)  $-O-CF_3$ ,
- (6)  $-NH_2$ ,
- (7)  $-OH$ , or
- (8)  $-C\equiv N$ ,

with the proviso that when  $n_1$  is zero  $R_1$ -heteroaryl is not bonded to the carbon chain by nitrogen, or

(VII)  $-(CH_2)_{n_1}-(R_1\text{-heterocycle})$  where  $n_1$  is as defined above

and

$R_1$ -heterocycle is:

- (A) morpholinyl,
- (B) thiomorpholinyl,
- (C) thiomorpholinyl S-oxide,
- (D) thiomorpholinyl S,S-dioxide,
- (E) piperazinyl,
- (F) homopiperazinyl,
- (G) pyrrolidinyl,
- (H) pyrrolinyl,
- (I) tetrahydropyranyl,
- (J) piperidinyl,
- (K) tetrahydrofuranyl, or
- (L) tetrahydrothiophenyl,

where the R<sub>1</sub>-heterocycle group is bonded by any atom of the parent R<sub>1</sub>-heterocycle group substituted by hydrogen such that the new bond to the R<sub>1</sub>-heteroaryl group replaces the hydrogen atom and its bond, where heterocycle is unsubstituted or substituted with one or two:

- (1) =O,
- (2) C<sub>1</sub>-C<sub>3</sub> alkyl,
- (3) -CF<sub>3</sub>,
- (4) -F, Cl, -Br and -I,
- (5) C<sub>1</sub>-C<sub>3</sub> alkoxy,
- (6) -O-CF<sub>3</sub>,
- (7) -NH<sub>2</sub>,
- (8) -OH, or
- (9) -C≡N,

with the proviso that when n<sub>1</sub> is zero R<sub>1</sub>-heterocycle is not bonded to the carbon chain by nitrogen;

where R<sub>2</sub> is:

- (I) -H,
- (II) C<sub>1</sub>-C<sub>6</sub> alkyl, or
- (III) -(CH<sub>2</sub>)<sub>0-4</sub>-R<sub>2-1</sub> where R<sub>2-1</sub> is (C<sub>3</sub>-C<sub>6</sub>)cycloalkyl, R<sub>1</sub>-aryl or R<sub>1</sub>-heteroaryl where R<sub>1</sub>-aryl and R<sub>1</sub>-heteroaryl are as defined above,

where R<sub>N</sub> is:

- (I) R<sub>N-1</sub>-X<sub>N</sub>- where X<sub>N</sub> is:
  - (A) -CO-,
  - (B) -SO<sub>2</sub>-,
  - (C) -(CR'R'')<sub>1-6</sub> where R' and R'' are the same or different and are -H or C<sub>1</sub>-C<sub>4</sub> alkyl,
  - (D) -CO-(CR'R'')<sub>1-6</sub>-X<sub>N-1</sub> where X<sub>N-1</sub> is -O-, -S- and -NR'R''- and where R' and R'' are as defined above,

(E) a single bond;

where  $R_{N-1}$  is:

(A)  $R_{N-aryl}$  where  $R_{N-aryl}$  is phenyl, 1-naphthyl and 2-naphthyl unsubstituted or substituted with one, two, three or four of the following substituents which can be the same or different and are:

- (1)  $C_1-C_6$  alkyl,
- (2) -F, -Cl, -Br, or -I,
- (3) -OH,
- (4) -NO<sub>2</sub>,
- (5) -CO-OH,
- (6) -C≡N,

(7) -CO-NR<sub>N-2</sub>R<sub>N-3</sub> where  $R_{N-2}$  and  $R_{N-3}$  are the same or different and are:

- (a) -H,
- (b) -C<sub>1</sub>-C<sub>6</sub> alkyl unsubstituted or substituted with one
  - (i) -OH, or
  - (ii) -NH<sub>2</sub>,
- (c) -C<sub>1</sub>-C<sub>6</sub> alkyl unsubstituted or substituted with one to three -F, -Cl, -Br, or -I,
- (d) -C<sub>3</sub>-C<sub>7</sub> cycloalkyl,
- (e) -(C<sub>1</sub>-C<sub>2</sub> alkyl)-(C<sub>3</sub>-C<sub>7</sub> cycloalkyl),
- (f) -(C<sub>1</sub>-C<sub>6</sub> alkyl)-O-(C<sub>1</sub>-C<sub>3</sub> alkyl),
- (g) -C<sub>1</sub>-C<sub>6</sub> alkenyl with one or two

double bonds,

- (h) -C<sub>1</sub>-C<sub>6</sub> alkynyl with one or two

triple bonds,

(i)  $-C_1-C_6$  alkyl chain with one double bond and one triple bond,  
(j)  $-R_1\text{-aryl}$  where  $R_1\text{-aryl}$  is as defined above, or

(k)  $-R_1\text{-heteroaryl}$  where  $R_1\text{-heteroaryl}$  is as defined above,

(8)  $-\text{CO}-(C_3-C_{12} \text{ alkyl})$ ,

(9)  $-\text{CO}-(C_3-C_6 \text{ cycloalkyl})$ ,

(10)  $-\text{CO}-R_1\text{-heteroaryl}$  where  $R_1\text{-heteroaryl}$  is as defined above,

(11)  $-\text{CO}-R_1\text{-heterocycle}$  where  $R_1\text{-heterocycle}$  is as defined above,

(12)  $-\text{CO}-R_{N-4}$  where  $R_{N-4}$  is morpholinyl, thiomorpholinyl, piperazinyl, piperidinyl or pyrrolidinyl where each group is unsubstituted or substituted with one or two  $C_1-C_3$  alkyl,

(13)  $-\text{CO}-O-R_{N-5}$  where  $R_{N-5}$  is:

(a)  $C_1-C_6$  alkyl, or

(b)  $-(CH_2)_{0-2}-(R_1\text{-aryl})$  where  $R_1\text{-aryl}$  is as defined above,

(14)  $-\text{SO}_2-\text{NR}_{N-2}R_{N-3}$  where  $R_{N-2}$  and  $R_{N-3}$  are as defined above,

(15)  $-\text{SO}-(C_1-C_8 \text{ alkyl})$ ,

(16)  $-\text{SO}_2-(C_3-C_{12} \text{ alkyl})$ ,

(17)  $-\text{NH}-\text{CO}-O-R_{N-5}$  where  $R_{N-5}$  is as defined above,

(18)  $-\text{NH}-\text{CO}-N(C_1-C_3 \text{ alkyl})_2$ ,

(19)  $-\text{N}-\text{CS}-N(C_1-C_3 \text{ alkyl})_2$ ,

(20)  $-\text{N}(C_1-C_3 \text{ alkyl})-\text{CO}-R_{N-5}$  where  $R_{N-5}$  is as defined above,

- (21)  $-NR_{N-2}R_{N-3}$  where  $R_{N-2}$  and  $R_{N-3}$  can be the same or different and are as defined above,
  - (22)  $-R_{N-4}$  where  $R_{N-4}$  is as defined above,
  - (23)  $-O-CO-(C_1-C_6 \text{ alkyl})$ ,
  - (24)  $-O-CO-N(C_1-C_3 \text{ alkyl})_2$ ,
  - (25)  $-O-CS-N(C_1-C_3 \text{ alkyl})_2$ ,
  - (26)  $-O-(C_1-C_6 \text{ alkyl})$ ,
  - (27)  $-O-(C_2-C_5 \text{ alkyl})-COOH$ ,
  - (28)  $-S-(C_1-C_6 \text{ alkyl})$ ,
  - (29)  $C_1-C_6$  alkyl unsubstituted or substituted with 1, 2, 3, 4, or 5  $-F$ ,
  - (30)  $-O-(C_1-C_6 \text{ alkyl}$  unsubstituted or substituted with 1, 2, 3, 4, or 5  $-F$ , or
  - (31)  $-O-\phi$ ,
- (B)  $-R_{N\text{-heteroaryl}}$  where  $R_{N\text{-heteroaryl}}$  is:
- (A) pyridinyl,
  - (B) pyrimidinyl,
  - (C) quinolinyl,
  - (D) indenyl,
  - (E) indanyl,
  - (F) benzothiophenyl,
  - (G) indolyl,
  - (H) indolinyl,
  - (I) pyridazinyl,
  - (J) pyrazinyl,
  - (K) isoindolyl,
  - (L) isoquinolyl,
  - (M) quinazolinyl,
  - (N) quinoxalinyl,
  - (O) phthalazinyl,



(P) imidazolyl,  
(Q) isoxazolyl,  
(R) pyrazolyl,  
(S) oxazolyl,  
(T) thiazolyl,  
(U) indolizinylyl,  
(V) indazolyl,  
(W) benzothiazolyl,  
(X) benzimidazolyl,  
(Y) benzofuranyl,  
(Z) furanyl,  
(AA) thienyl,  
(BB) pyrrolyl,  
(CC) oxadiazolyl,  
(DD) thiadiazolyl,  
(EE) triazolyl,  
(FF) tetrazolyl,  
(GG) 1, 4-benzodioxan  
(HH) purinyl,  
(II) oxazolopyridinyl,  
(JJ) imidazopyridinyl,  
(KK) isothiazolyl,  
(LL) naphthyridinyl,  
(MM) cinnolinyl,  
(NN) carbazolyl,  
(OO)  $\beta$ -carbolinyl,  
(PP) isochromanlyl,  
(QQ) chromanyl,  
(RR) furazanyl,  
(SS) tetrahydroisoquinoline,  
(TT) isoindolinyl,

- (UU) isobenzotetrahydrofuranyl,
- (VV) isobenzotetrahydrothienyl,
- (WW) isobenzothiophenyl,
- (XX) benzoxazolyl, or
- (YY) pyridopyridinyl,

where the  $R_{N\text{-heteroaryl}}$  group is bonded by any atom of the parent  $R_{N\text{-heteroaryl}}$  group substituted by hydrogen such that the new bond to the  $R_{N\text{-heteroaryl}}$  group replaces the hydrogen atom and its bond, where heteroaryl is unsubstituted or substituted with one or two:

- (1)  $C_1\text{-}C_6$  alkyl,
- (2) -F, -Cl, -Br, or -I,
- (3) -OH,
- (4) -NO<sub>2</sub>,
- (5) -CO-OH,
- (6) -C≡N,
- (7) -CO-NR<sub>N-2</sub>R<sub>N-3</sub> where R<sub>N-2</sub> and R<sub>N-3</sub> are the same or different and are:
  - (a) -H,
  - (b) -C<sub>1</sub>-C<sub>6</sub> alkyl unsubstituted or substituted with one
    - (i) -OH, or
    - (ii) -NH<sub>2</sub>,
  - (c) -C<sub>1</sub>-C<sub>6</sub> alkyl unsubstituted or substituted with 1, 2, or 3 -F, -Cl, -Br, or -I,
  - (d) -C<sub>3</sub>-C<sub>7</sub> cycloalkyl,
  - (e) -(C<sub>1</sub>-C<sub>2</sub> alkyl)-(C<sub>3</sub>-C<sub>7</sub> cycloalkyl),
  - (f) -(C<sub>1</sub>-C<sub>6</sub> alkyl)-O-(C<sub>1</sub>-C<sub>3</sub> alkyl),

- (g)  $-C_1-C_6$  alkenyl with one or two double bonds,
- (h)  $-C_1-C_6$  alkynyl with one or two triple bonds,
- (i)  $-C_1-C_6$  alkyl chain with one double bond and one triple bond,
- (j)  $-R_1\text{-aryl}$  where  $R_1\text{-aryl}$  is as defined above, or
- (k)  $-R_1\text{-heteroaryl}$  where  $R_1\text{-heteroaryl}$  is as defined above,
- (8)  $-\text{CO}-(C_3-C_{12} \text{ alkyl})$ ,
- (9)  $-\text{CO}-(C_3-C_6 \text{ cycloalkyl})$ ,
- (10)  $-\text{CO}-R_1\text{-heteroaryl}$  where  $R_1\text{-heteroaryl}$  is as defined above,
- (11)  $-\text{CO}-R_1\text{-heterocycle}$  where  $R_1\text{-heterocycle}$  is as defined above,
- (12)  $-\text{CO}-R_{N-4}$  where  $R_{N-4}$  is morpholinyl, thiomorpholinyl, piperazinyl, piperidinyl or pyrrolidinyl where each group is unsubstituted or substituted with one or two  $C_1-C_3$  alkyl,
- (13)  $-\text{CO}-O-R_{N-5}$  where  $R_{N-5}$  is:
  - (a)  $C_1-C_6$  alkyl, or
  - (b)  $-(\text{CH}_2)_{0-2}-(R_1\text{-aryl})$  where  $R_1\text{-aryl}$  is as defined above,
- (14)  $-\text{SO}_2-\text{NR}_{N-2}R_{N-3}$  where  $R_{N-2}$  and  $R_{N-3}$  are as defined above,
- (15)  $-\text{SO}-(C_1-C_8 \text{ alkyl})$ ,
- (16)  $-\text{SO}_2-(C_3-C_{12} \text{ alkyl})$ ,

(17)  $\text{-NH-CO-O-R}_{N-5}$  where  $R_{N-5}$  is as defined above,

(18)  $\text{-NH-CO-N(C}_1\text{-C}_3 \text{ alkyl})_2$ ,

(19)  $\text{-N-CS-N(C}_1\text{-C}_3 \text{ alkyl})_2$ ,

(20)  $\text{-N(C}_1\text{-C}_3 \text{ alkyl)-CO-R}_{N-5}$  where  $R_{N-5}$  is as defined above,

(21)  $\text{-NR}_{N-2}\text{R}_{N-3}$  where  $R_{N-2}$  and  $R_{N-3}$  can be the same or different and are as defined above,

(22)  $\text{-R}_{N-4}$  where  $R_{N-4}$  is as defined above,

(23)  $\text{-O-CO-(C}_1\text{-C}_6 \text{ alkyl)}$ ,

(24)  $\text{-O-CO-N(C}_1\text{-C}_3 \text{ alkyl})_2$ ,

(25)  $\text{-O-CS-N(C}_1\text{-C}_3 \text{ alkyl})_2$ ,

(26)  $\text{-O-(C}_1\text{-C}_6 \text{ alkyl)}$ ,

(27)  $\text{-O-(C}_2\text{-C}_5 \text{ alkyl)-COOH}$ , or

(28)  $\text{-S-(C}_1\text{-C}_6 \text{ alkyl)}$ ,

(C)  $\text{-R}_{N\text{-aryl}}\text{-R}_{N\text{-aryl}}$  where  $\text{-R}_{N\text{-aryl}}$  is as defined above,

(D)  $\text{-R}_{N\text{-aryl}}\text{-R}_{N\text{-heteroaryl}}$  where  $\text{-R}_{N\text{-aryl}}$  and  $\text{-R}_{N\text{-heteroaryl}}$  are as defined above,

(E)  $\text{-R}_{N\text{-heteroaryl}}\text{-R}_{N\text{-aryl}}$  where  $\text{-R}_{N\text{-aryl}}$  and  $\text{-R}_{N\text{-heteroaryl}}$  are as defined above,

(F)  $\text{-R}_{N\text{-heteroaryl}}\text{-R}_{N\text{-heteroaryl}}$  where  $R_{N\text{-heteroaryl}}$  is as defined above,

(G)  $\text{-R}_{N\text{-aryl}}\text{-O-R}_{N\text{-aryl}}$  where  $\text{-R}_{N\text{-aryl}}$  is as defined above,

(H)  $\text{-R}_{N\text{-aryl}}\text{-S-R}_{N\text{-aryl}}$  where  $\text{-R}_{N\text{-aryl}}$  is as defined above,

(I)  $\text{-R}_{N\text{-heteroaryl}}\text{-O-R}_{N\text{-heteroaryl}}$  where  $R_{N\text{-heteroaryl}}$  is as defined above,

(J)  $-R_{N\text{-heteroaryl}}-S-R_{N\text{-heteroaryl}}$  where  $R_{N\text{-heteroaryl}}$  is as defined above,

(K)  $-R_{N\text{-aryl}}-CO-R_{N\text{-aryl}}$  where  $-R_{N\text{-aryl}}$  is as defined above,

(L)  $-R_{N\text{-aryl}}-CO-R_{N\text{-heteroaryl}}$  where  $-R_{N\text{-aryl}}$  and  $R_{N\text{-heteroaryl}}$  are as defined above,

(M)  $-R_{N\text{-aryl}}-SO_2-R_{N\text{-aryl}}$  where  $-R_{N\text{-aryl}}$  is as defined above,

(N)  $-R_{N\text{-heteroaryl}}-CO-R_{N\text{-heteroaryl}}$  where  $R_{N\text{-heteroaryl}}$  is as defined above,

(O)  $-R_{N\text{-heteroaryl}}-SO_2-R_{N\text{-heteroaryl}}$  where  $R_{N\text{-heteroaryl}}$  is as defined above,

(P)  $-R_{N\text{-aryl}}-O-(C_1-C_8 \text{ alkyl})-\phi$  where  $R_{N\text{-aryl}}$  is as defined above,

(Q)  $-R_{N\text{-aryl}}-S-(C_1-C_8 \text{ alkyl})-\phi$  where  $R_{N\text{-aryl}}$  is as defined above,

(R)  $-R_{N\text{-heteroaryl}}-O-(C_1-C_8 \text{ alkyl})-\phi$  where  $R_{N\text{-heteroaryl}}$  is as defined above, or

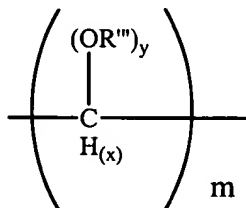
(S)  $-R_{N\text{-heteroaryl}}-S-(C_1-C_8 \text{ alkyl})-\phi$  where  $R_{N\text{-heteroaryl}}$  is as defined above,

(II)  $A-X_N-$  where  $X_N$  is  $-CO-$ ,

wherein A is

(A)  $-T-E-(Q)_m$ ,

(1) where  $-T$  is



where

(a)  $x = 1$  when  $y = 1$  and  $x = 2$  when  $y = 0$ ,

(b)  $m$  is 0, 1, 2 or 3,

(c) the values of  $x$  and  $y$  vary independently on each carbon when  $m$  is 2 and 3, and

(d)  $R'''$  varies independently on each carbon and is H,  $(C_1-C_2)$  alkyl, phenyl, or phenyl $(C_1-C_3)$ alkyl;

(2) -E is

(a)  $C_1-C_5$  alkyl, but only if  $m'$  does not equal 0,

(b) methylthioxy $(C_2-C_4)$ alkyl,

(c) an aryl group having 5 to 7 atoms when monocyclic or having 8 to 12 atoms when fused,

(d) a heterocyclic group having 5 to 7 atoms when monocyclic or having 8 to 12 atoms when fused,

(e) a mono or fused ring cycloalkyl group having 5 to 10 carbon atoms,

(f) biphenyl,

(g) diphenyl ether,

(h) diphenylketone,

(i) phenyl $(C_1-C_8)$ alkyloxyphenyl, or

(j)  $C_1-C_6$  alkoxy;

(3) -Q is

(a)  $C_1-C_3$  alkyl,

(b)  $C_1-C_3$  alkoxy,

(c)  $C_1-C_3$  alkylthioxy,

- (d) C<sub>1</sub>-C<sub>6</sub> alkylacylamino,
- (e) C<sub>1</sub>-C<sub>6</sub> alkylacyloxy,
- (f) amido (including primary, C<sub>1</sub>-C<sub>6</sub> alkyl and phenyl secondary and tertiary amino moieties),
- (g) C<sub>1</sub>-C<sub>6</sub> alkylamino
- (h) phenylamino,
- (i) carbamyl (including C<sub>1</sub>-C<sub>6</sub> alkyl and phenyl amides and esters),
- (j) carboxyl (including C<sub>1</sub>-C<sub>6</sub> alkyl and phenyl esters),
- (k) carboxy(C<sub>2</sub>-C<sub>5</sub>)alkoxy,
- (l) carboxy(C<sub>2</sub>-C<sub>5</sub>)alkylthioxy,
- (m) heterocyclylacyl,
- (n) heteroarylacyl, or
- (o) hydroxyl;

(4) m' is 0, 1, 2 or 3;

- (B) -E(Q)<sub>m'</sub>, wherein E and -Q are as defined as above and m' is 0, 1, 2, or 3;
- (C) -T-E wherein -E and -Q are as defined as above; or
- (D) -E wherein -E is as defined as above;

(III) -CO-(C<sub>1</sub>-C<sub>6</sub> alkyl) where alkyl is unsubstituted or substituted with one or two:

- (A) -OH,
- (B) -C<sub>1</sub>-C<sub>6</sub> alkoxy,
- (C) -C<sub>1</sub>-C<sub>6</sub> thioalkoxy,
- (D) -CO-O-R<sub>N-8</sub> where R<sub>N-8</sub> is -H, C<sub>1</sub>-C<sub>6</sub> alkyl or -φ,
- (E) -CO-NR<sub>N-2</sub>R<sub>N-3</sub> where R<sub>N-2</sub> and R<sub>N-3</sub> are the same or different and are as defined above,
- (F) -CO-R<sub>N-4</sub> where R<sub>N-4</sub> is as defined above,

- (G)  $-\text{SO}_2-(\text{C}_1-\text{C}_8 \text{ alkyl}),$
- (H)  $-\text{SO}_2-\text{NR}_{\text{N}-2}\text{R}_{\text{N}-3}$  where  $\text{R}_{\text{N}-2}$  and  $\text{R}_{\text{N}-3}$  are the same or different and are as defined above,
- (I)  $-\text{NH}-\text{CO}-(\text{C}_1-\text{C}_6 \text{ alkyl}),$
- (J)  $-\text{NH}-\text{CO}-\text{O}-\text{R}_{\text{N}-8}$  where  $\text{R}_{\text{N}-8}$  is as defined above,
- (K)  $-\text{NR}_{\text{N}-2}\text{R}_{\text{N}-3}$  where  $\text{R}_{\text{N}-2}$  and  $\text{R}_{\text{N}-3}$  are the same or different and are as defined above,
- (L)  $-\text{R}_{\text{N}-4}$  where  $\text{R}_{\text{N}-4}$  is as defined above,
- (M)  $-\text{O}-\text{CO}-(\text{C}_1-\text{C}_6 \text{ alkyl}),$
- (N)  $-\text{O}-\text{CO}-\text{NR}_{\text{N}-8}\text{R}_{\text{N}-8}$  where the  $\text{R}_{\text{N}-8}$  is the same or different and are as defined above, or
- (O)  $-\text{O}-(\text{C}_1-\text{C}_5 \text{ alkyl})-\text{COOH},$
- (IV)  $-\text{CO}-(\text{C}_1-\text{C}_3 \text{ alkyl})-\text{O}-(\text{C}_1-\text{C}_3 \text{ alkyl})$  where alkyl is unsubstituted or substituted with one or two
  - (A)  $-\text{OH},$
  - (B)  $-\text{C}_1-\text{C}_6 \text{ alkoxy},$
  - (C)  $-\text{C}_1-\text{C}_6 \text{ thioalkoxy},$
  - (D)  $-\text{CO}-\text{O}-\text{R}_{\text{N}-8}$  where  $\text{R}_{\text{N}-8}$  is  $-\text{H}$ ,  $\text{C}_1-\text{C}_6 \text{ alkyl}$  or  $-\phi,$
  - (E)  $-\text{CO}-\text{NR}_{\text{N}-2}\text{R}_{\text{N}-3}$  where  $\text{R}_{\text{N}-2}$  and  $\text{R}_{\text{N}-3}$  are the same or different and are as defined above,
  - (F)  $-\text{CO}-\text{R}_{\text{N}-4}$  where  $\text{R}_{\text{N}-4}$  is as defined above,
  - (G)  $-\text{SO}_2-(\text{C}_1-\text{C}_8 \text{ alkyl}),$
  - (H)  $-\text{SO}_2-\text{NR}_{\text{N}-2}\text{R}_{\text{N}-3}$  where  $\text{R}_{\text{N}-2}$  and  $\text{R}_{\text{N}-3}$  are the same or different and are as defined above,
  - (I)  $-\text{NH}-\text{CO}-(\text{C}_1-\text{C}_6 \text{ alkyl}),$
  - (J)  $-\text{NH}-\text{CO}-\text{O}-\text{R}_{\text{N}-8}$  where  $\text{R}_{\text{N}-8}$  is as defined above,
  - (K)  $-\text{NR}_{\text{N}-2}\text{R}_{\text{N}-3}$  where  $\text{R}_{\text{N}-2}$  and  $\text{R}_{\text{N}-3}$  are the same or different and are as defined above,
  - (L)  $-\text{R}_{\text{N}-4}$  where  $\text{R}_{\text{N}-4}$  is as defined above,
  - (M)  $-\text{O}-\text{CO}-(\text{C}_1-\text{C}_6 \text{ alkyl}),$



- (N)  $-O-CO-NR_{N-8}R_{N-8}$  where the  $R_{N-8}$  are the same or different and are as defined above, or
- (O)  $-O-(C_1-C_5 \text{ alkyl})-COOH$ ,
- (V)  $-CO-(C_1-C_3 \text{ alkyl})-S-(C_1-C_3 \text{ alkyl})$  where alkyl is unsubstituted or substituted with one or two
- (A)  $-OH$ ,
- (B)  $-C_1-C_6$  alkoxy,
- (C)  $-C_1-C_6$  thioalkoxy,
- (D)  $-CO-O-R_{N-8}$  where  $R_{N-8}$  is  $-H$ ,  $C_1-C_6$  alkyl or  $-\phi$ ,
- (E)  $-CO-NR_{N-2}R_{N-3}$  where  $R_{N-2}$  and  $R_{N-3}$  are the same or different and are as defined above,
- (F)  $-CO-R_{N-4}$  where  $R_{N-4}$  is as defined above,
- (G)  $-SO_2-(C_1-C_8 \text{ alkyl})$ ,
- (H)  $-SO_2-NR_{N-2}R_{N-3}$  where  $R_{N-2}$  and  $R_{N-3}$  are the same or different and are as defined above,
- (I)  $-NH-CO-(C_1-C_6 \text{ alkyl})$ ,
- (J)  $-NH-CO-O-R_{N-8}$  where  $R_{N-8}$  is as defined above,
- (K)  $-NR_{N-2}R_{N-3}$  where  $R_{N-2}$  and  $R_{N-3}$  are the same or different and are as defined above,
- (L)  $-R_{N-4}$  where  $R_{N-4}$  is as defined above,
- (M)  $-O-CO-(C_1-C_6 \text{ alkyl})$ ,
- (N)  $-O-CO-NR_{N-8}R_{N-8}$  where the  $R_{N-8}$  are the same or different and are as defined above, or
- (O)  $-O-(C_1-C_5 \text{ alkyl})-COOH$ ,
- (VI)  $-CO-CH(-(CH_2)_{0-2}-O-R_{N-10})-(CH_2)_{0-2}-R_{N-aryl}/R_{N-heteroaryl}$   
where  $R_{N-aryl}$  and  $R_{N-heteroaryl}$  are as defined above,  
where  $R_{N-10}$  is:
- (A)  $-H$ ,
- (B)  $C_1-C_6$  alkyl,
- (C)  $C_3-C_7$  cycloalkyl,
- (D)  $C_2-C_6$  alkenyl with one double bond,

(E) C<sub>2</sub>-C<sub>6</sub> alkynyl with one triple bond,  
(F) R<sub>1</sub>-aryl where R<sub>1</sub>-aryl is as defined above, or  
(G) R<sub>N</sub>-heteroaryl where R<sub>N</sub>-heteroaryl is as defined  
above;

where B is -O-, -NH-, or -N(C<sub>1</sub>-C<sub>6</sub> alkyl)-;

where R<sub>C</sub> is: -(CH<sub>2</sub>)<sub>0-3</sub>-(C<sub>3</sub>-C<sub>7</sub>) cycloalkyl where cycloalkyl can  
be unsubstituted or substituted with one, two or three

(A) C<sub>1</sub>-C<sub>3</sub> alkyl unsubstituted or substituted with  
1, 2, 3, or 4 -F,

-Cl, -Br, or -I,

(B) -CO-OH,

(C) -CO-O-(C<sub>1</sub>-C<sub>4</sub> alkyl),

(D) -OH, or

(E) C<sub>1</sub>-C<sub>6</sub> alkoxy,

or a pharmaceutically acceptable salt thereof.

Claim 50. (currently amended) The method of claim 49,  
wherein said compound inhibits 50% of β-secretase ~~the enzyme's~~  
activity at a concentration of from about 0.1nM to about 200μM.

Claim 51. (currently amended) The method of claim 50,  
wherein said compound inhibits 50% of β-secretase ~~the enzyme's~~  
activity at a concentration of from about 10nM to about 100μM.

Claim 52. (currently amended) The method of claim 51,  
wherein said compound inhibits 50% of β-secretase ~~the enzyme's~~  
activity at a concentration of from about 100nM to about 50μM.

Claim 53. (currently amended) The method of claim 52, wherein said compound inhibits 50% of  $\beta$ -secretase ~~the enzyme's~~ activity at a concentration of from about 1 $\mu$ M to about 10 $\mu$ M.

Claim 54. (previously presented) The method of claim 49, wherein said therapeutic amount is in the range of from about 0.1 to about 1000 mg/day.

Claim 55. (previously presented) The method of claim 49, wherein said therapeutic amount is in the range of from about 15 to about 1500 mg/day.

Claim 56. (previously presented) The method of claim 55, wherein said therapeutic amount is in the range of from about 1 to about 100 mg/day.

Claim 57. (previously presented) The method of claim 56, wherein said therapeutic amount is in the range of from about 5 to about 50 mg/day.

Claims 58-93(cancelled)

Claim 94. (previously presented) A method according to claim 49, wherein the compound is

N-[(1*S*, 2*S*, 4*R*)-1-(3,5-Difluorobenzyl)-4-(*syn*, *syn*)-(3,5 dimethoxycyclohexylcarbamoyl)-2-hydroxyhexyl]-*N,N*-dipropylisophthalamide;

*N*-[4-(*R*)-(Cyclohexylmethyl-carbamoyl)-1-(*S*)-(3,5-difluorobenzyl)-2-(*S*)-hydroxy-hexyl]-*N,N*-dipropyl-isophthalamide;

4-([6-(3,5-Difluoro-phenyl)-5-(S)-(3-dipropylcarbamoyl-benzoylamino)-2-(R)-ethyl-4-(S)-hydroxy-hexanoylamino]-methyl)-cyclohexanecarboxylic acid methyl ester;

4-(anti)-([6-(3,5-Difluoro-phenyl)-5-(S)-(3-dipropylcarbamoyl-benzoylamino)-2-(R)-ethyl-4-(S)-hydroxy-hexanoylamino]-methyl)-cyclohexanecarboxylic acid;

4-(anti)-([6-(3,5-Difluoro-phenyl)-5-(S)-(3-dipropylcarbamoyl-benzoylamino)-4-(S)-hydroxy-2-(R)-methyl-hexanoylamino]-methyl)-cyclohexanecarboxylic acid;

4-(anti)-([6-(3,5-Difluoro-phenyl)-5-(S)-(3-dipropylcarbamoyl-benzoylamino)-4-(S)-hydroxy-2-(R)-propyl-hexanoylamino]-methyl)-cyclohexanecarboxylic acid;

4-(anti)-([6-(3,5-Difluoro-phenyl)-5-(S)-(3-dipropylcarbamoyl-benzoylamino)-4-(S)-hydroxyl-2-(R)-isobutyl-hexanoylamino]-methyl)-cyclohexanecarboxylic acid;

4-(anti)-([6-(3,5-Difluoro-phenyl)-5-(S)-(3-dipropylcarbamoyl-benzoylamino)-4-(S)-hydroxy-hexanoylamino]-methyl)-cyclohexanecarboxylic acid;

4-(anti)-([2-(R)-Benzyl-6-(3,5-difluoro-phenyl)-5-(S)-(3-dipropylcarbamoyl-benzoylamino)-4-(S)-hydroxy-hexanoylamino]-methyl)-cyclohexanecarboxylic acid;

4-(anti)-([6-(3,5-Difluoro-phenyl)-5-(S)-(3-dipropylcarbamoyl-5-methyl-benzoylamino)-2-(R)-ethyl-4-(S)-hydroxy-hexanoylamino]-methyl)-cyclohexanecarboxylic acid;

4-(anti)-([6-(3,5-Difluoro-phenyl)-5-(S)-(3-dipropylcarbamoyl-5-methyl-benzoylamino)-2-(R)-ethyl-4-(S)-hydroxy-hexanoylamino]-methyl)-cyclohexanecarboxylic acid methyl ester;

4-(anti)-{[6-(3,5-Difluorophenyl)-5-(S)-(3-dipropylcarbamoylbenzoylamino)-2-(R)-ethyl-4-(S)-hydroxyhexanoylamino]-methyl}cyclohexanecarboxylic acid;

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N-[(1*S*, 2*S*, 4*R*)-1-(3,5-Difluorobenzyl)-4-(*syn, syn*)-(3,5-dimethoxycyclohexylcarbamoyl)-2-hydroxyhexyl]-*N,N*-dipropylisophthalamide; or

*N*-[4-(*R*)-(Adamantan-2-ylcarbamoyl)-1-(*S*)-(3,5-difluorobenzyl)-2-(*S*)-hydroxy-pentyl]-5-methyl-*N,N*-dipropylisophthalamide.

Claims 95-104. (cancelled)